

**Curriculum vitae**

1. **Family name: Nyamangara**
2. **First names: Justice**
3. **Nationality: Zimbabwean**
4. **Country of Residence: Zimbabwe**
5. **Contact details: 2935 New Marlborough, Harare**, **Zimbabwe**

 **:** **jnyamangara@gmail.com****; : +263772234965 / +263712617063**

1. **Education:**

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| **Institution****[ Date from - Date to ]** | **Qualification obtained:** |
| University of Zimbabwe 1987-1989  | BSc Agriculture Honours |
| University of Aberdeen 1992-1993 | MSc Soil Science |
| University of Zimbabwe 1995-2001 | DPhil Agriculture |

1. **Language skills:** (1 - excellent; 5 - basic)

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| **Language** | **Reading** | **Speaking** | **Writing** |
| English | 1 | 1 | 1 |
| Shona | 1 | 1 | 1 |
| Chewa | 4 | 3 | 5 |

1. **Membership** **of professional bodies:**

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| Soil Science Society of Zimbabwe |

1. **Specialisation**: Soil Fertility Management, Agronomy

 **Present position:** Vice Chancellor

1. **Key Skills:** Fertilizer Management, Soil Fertility Management, Climate Smart Agriculture, Agronomy, Farmer Training
2. **Specific experience:**

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| **Country** | **Date from - Date to** |
| Zimbabwe | 2000-2006, 2014-2020 |
| Malawi | 2007-2008 |
| Eastern and Southern Africa | 2009-2014 |

1. **Professional experience (Formal employment and Assignments/consultancies**)

| **Date from - to** | **Location** | **Organisation** | **Position** | **Description of Duties and achievements** |
| --- | --- | --- | --- | --- |
| 1990-2000 | Zimbabwe | Ministry of Agriculture | Principal Research Officer | Conducting research in soil fertility, plant nutrition. Provide fertiliser recommendations to farmers and other organisations for the production of arable, horticultural and plantation crops based on soil and plant analysis. As head of crop nutrition, recommend to Registering Officer on registration of new fertiliser, and re-registration of old fertiliser, to be manufactured and/or sold in Zimbabwe.  |
| 2000-2009 | Zimbabwe | University of Zimbabwe | Professor/ Deputy Dean | Lecturer in Soil Chemistry, Soil Fertility, Plant Nutrition and Environmental Management.Providing academic and administrative leadership of the Faculty of Agriculture. |
| 2007-2008 | Malawi | CIAT | Visiting Scientist | Conduct soil fertility research to improve area-specificity of fertiliser use for maize-legume cropping systems in central Malawi, northern Mozambique and Eastern Zambia. Conduct soil fertility research to improve productivity of rice and maize in southern Malawi. |
| 2009-2014 | Eastern and Southern Africa | ICRISAT | IRS Scientist | Conduct research in conservation agriculture, and fertiliser management including micro-dosing in semi-arid areas.Providing technical back-up to NGOs and government extension officers in conservation farming, soil fertility management and crop production. |
| 2014-2018 | Zimbabwe | Chinhoyi University of Technology | Professorial Chair & Pro-Vice Chancellor | Supervise 7 Deans of Schools, University Librarian and 6 Academic Directorates.Coordinate and research activities of the university. Supervise Academic and Human Resources units of the university.  |
| 2019-Present | Zimbabwe | Marondera University of Agricultural Sciences & Technology | Vice Chancellor | Chief Academic, Administrator and Disciplinary Officer. Chair of Council and Member of University Council. |

1. Publications
2. Kodzwa, J.J., **Nyamangara, J.** and Gotosa, J. 2020. Mulching is the most important of the three conservation agriculture pillars in increasing crop yield under sub humid tropical conditions in Zimbabwe. Soil and Tillage Research, 197, ([DOI: 10.1016/j.still.2019.104515](https://doi.org/10.1016/j.still.2019.104515)). (IF 2018: 4.675)
3. Shumba, A., Dunjana, N., Nyamasoka, B., Nyamugafata, P., Madyiwa, S. and **Nyamangara, J.** 2020. Maize (Zea mays, L.) yield and its relationship to soil properties under integrated fertility, mulch and tillage management under urban agriculture. South African Journal of Plant and Soil. (DOI: 10.1080/02571862.2019.1678686).
4. Govere, S., **Nyamangara, J.** and Nyakatawa, E.Z. 2019. Climate change and the water footprint of wheat production in Zimbabwe: A review. Accepted subject to minor corrections in WaterSA, 45 (3) (DOI: <https://doi.org/10.4314/wsa.v45i3.10>) (IF 2017: 0.783).
5. Gotosa, J., Kodzwa, J.J., **Nyamangara, J.** and Gwenzi, W.I. 2019. Effect of Nitrogen fertiliser application on maize yield in Zimbabwe: a meta-analysis approach. Accepted subject to moderate corrections in International Journal of Plant Production, 13(3) 251-266. (DOI: http://doi.org/10.1007/s42106-019-00045-9) (IF 2018: 0.961).
6. Masvaya, E.N., **Nyamangara, J.**, Giller, K.E. and Descheemaeker, K. 2018. Risk management options in maize cropping systems in semi-arid areas of southern Africa. Field Crops Research, 228, 110-121. (DOI: https://doi.org/10.1016/j.fcr.2018.09.002). (IF 2017: 3.127)
7. Masvaya, E.N., **Nyamangara, J.,** Descheemaeker, K., Giller K.E. 2017. Is maize-cowpea intercropping a viable option for smallholder farms in the risky environments of semi-arid southern Africa? Field Crops Research, 209, 73-87. (Elsevier) (DOI: 10.1016/j.fcr.2017.04.016). (IF 2015: 2.927).
8. Masvaya, E.N., **Nyamangara, J**., Descheemaeker, K., Giller K.E. 2017. Tillage, mulch and fertiliser impacts on soil nitrogen availability and maize production in semi-arid Zimbabwe. Soil and Tillage Research, [168](http://www.sciencedirect.com/science/journal/01671987/168/supp/C), 125–132. (Elsevier) (DOI:[10.1016/j.still.2016.12.007](http://dx.doi.org/10.1016/j.still.2016.12.007)) (IF 2015: 2.709).
9. Mavunganidze, Z., Madakadze, I.C., **Nyamangara, J.** and Mafongoya, P. 2016. Influence of selected soil properties, soil management practices and socio-economic variables on relative weed density in a hand hoe-based conservation agriculture system. Soil Use and Management, 32(3) 433-445. (British Society of Soil Science), (DOI: 10.1111/sum.12287), (IF 2015:1.823).
10. Masaka, J., **Nyamangara, J.** and Wuta, M. 2016. Nitrous oxide emissions from wetland soil amended with two types of cattle manure. International Journal of Recycling of Organic Waste in Agriculture, 5(2) 125-140. (DOI: DOI: 10.1007/s40093-016-0123-9), (Springer), (IF 2014: 0.681)
11. Musiyiwa, K., **Nyamangara, J.** and Leal, W. 2015. Assessment of farmer preferred organisations by gender in different smallholder areas of Zimbabwe. International Journal of Agricultural Resources, Governance and Ecology, 11 (3/4) 311-329.
12. Dunjana, N., Nyamugafata, P., **Nyamangara, J.**, Mango, N. and Gwenzi, W. 2015. Maize water productivity and its relationship to soil properties under integrated cattle manure and mineral-N fertilizer application in a smallholder cropping system. Agronomy Journal, 107 (6) 2410-2418.(American Society of Agronomy), (DOI: 10.2134/agronj15.0051)*.* (IF 2014: 1.542).
13. Mujuru, L., Rusinamhodzi, L., **Nyamangara, J.** and Hoosbeek, M.R. 2015. Effects of nitrogen fertilizer and manure application on storage of carbon and nitrogen under continuous maize cropping in Arenosols and Luvisols of Zimbabwe. Journal of Agricultur​al Science, 154 (2) 242-257. (DOI: 10.1017/S0021859615000520) (Cambridge University Press). (IF 2014: 0.653).
14. Masaka, J., Wuta, M., **Nyamangara, J.** 2015. Effect of inorganic and organic fertilizer application on nitrate leaching in wetland soil under field tomato (Lycopersicon esculentum, Mill var. Heinz) and leaf rape (Brassica napus, L var. Giant). Agricultural Research, 4(1) 63-75. (DOI: 10.1007/s40003-014-0147-1). (IF 2014: 0.653, IF 2013: 2.891)
15. Nyamadzawo, G., Nyamugafata, P., Wuta, M., **Nyamangara, J.**, Chirinda, N. 2015. Optimising dambo (vlei) cultivation for climate change adaptation and sustainable crop production in the smallholder farming areas of Zimbabwe. *International Journal of Agricultural Sustainability (IJAS*)*, 13(1) 23-39* (DOI: 10.1080/14735903.2013.863450), (IF 2014: 1.659).
16. Dunjana, N, Nyamugafata, P., **Nyamangara, J.** and Mango, N. 2014. Cattle manure and inorganic fertilizer application effects on soil hydraulic properties of two soils of Murewa district, Zimbabwe*. Soil Use and Management, 30 (4) 579-587*. (DOI: 10.1111/sum.12152), (IF: 1.466).
17. **Nyamangara, J.**, Marondedze, A., Masvaya, E., Mawodza, T., Nyawasha, R., Nyengerai, K., Tirivavi, R., Nyamugafata, P. and Wuta, M. 2014. Influence of basin-based conservation agriculture on selected soil quality parameters under smallholder farming in Zimbabwe. *Soil Use and Management, 30 (4) 550-559* (DOI: 10.1111/sum.12149). (IF: 1.466)
18. Hickman, J.E., Scholes, R.J. Rosenstock, T.S. Pérez García-Pando, C. and J. **Nyamangara, J**. 2014. Assessing non-CO2 climate-forcing emissions and mitigation in Africa. *Current Opinion in Environmental Sustainability*, 10, 65-72. (DOI: 10.1016/j.cosust.2014.07.010), (IF 2014: 3.491).
19. Nyamadzawo, G., Wuta, M., **Nyamangara, J.**, Smith, J.F. and Rees, R.M. 2014 Nitrous oxide and methane emissions from cultivated seasonal wetland (dambo) soils with inorganic, organic and integrated nutrient management. *Nutrient Cycling in Agroecosystems.100 (*[*2)*](https://link.springer.com/journal/10705/100/2/page/1) *161–175*. (DOI: 10.1007/s10705-014-9634-9). (IF 2014: 1.897)*.*
20. Homann-Kee Tui, S, Valbuena, D., Masikati, P., Descheemaeker, K., **Nyamangara, J**. Claessens L., van Rooyen, A., Nkomboni, D. and Erenstein, O. 2015. Economic trade-offs of biomass use in crop-livestock systems: Exploring more sustainable options in semi-arid Zimbabwe. *Agricultural Systems, 134, 48-60* (DOI: [10.1016/j.agsy.2014.06.009](http://dx.doi.org/10.1016/j.agsy.2014.06.009)), (IF 2014: 2.906).
21. Nyamadzawo, G., Wuta, M., **Nyamangara, J.**, Rees, R.M. and Smith, J.F. 2014. The effects of catena positions on greenhouse gas emissions along a seasonal wetland (dambo) transect in tropical Zimbabwe. *Archives of Agronomy and Soil Science,* 61: 203-221.(DOI: 10.1080/03650340.2014.926332), (IF 2014: 0.549)*.*
22. Nyamadzawo, G., Wuta, M., **Nyamangara, J.** Nyamugafata, P. and Tendayi, T. 2014. Burning, biomass removal and tillage effects on soil organic carbon and nutrients in seasonal wetlands (dambos) of Chiota smallholder farming area, Zimbabwe. *Archives of Agronomy and Soil Science*, 60, 1411-1427 (DOI: 10.1080/03650340.2014.892583), (IF 2014: 0.549).
23. Masaka, J., **Nyamangara, J**. and Wuta, M. 2014. Nitrous oxide emissions from wetland soil amended with inorganic and organic fertilizers. *Archives of Agronomy and Soil Science*, 60, 1363-1387 (DOI: 10.1080/03650340.2014.890707), (IF 2014: 0.549).
24. Mavunganidze, Z., Madakadze, I.C., **Nyamangara, J**. and Mafongoya, P. 2014. The impact of tillage system and herbicides on weed density, diversity and yield of cotton (*Gossipium hirsutum* L.) and maize (*Zea mays* L.) under smallholder sector *Crop Protection*, 58, 25-32 (DOI: 10.1016/j.cropro.2013.12.024), (IF 2014: 1.493).
25. Mujuru, L., Gotora, T., Velthorst E.J., **Nyamangara, J.** and Hoosbeek, M.R. 2014. Soil and forest floor carbon and nitrogen over an age sequence of *Pinus patula* plantations in Zimbabwean Eastern Highlands. *Forest Ecology and Management*, 313, 254-265. (DOI: [10.1016/j.foreco.2013.11.024](http://dx.doi.org/10.1016/j.foreco.2013.11.024)), (IF 2014: 2.660).
26. **Nyamangara, J.**, Nyengerai, K., Masvaya, E.N., Tirivavi, R., Mashingaidze, N., Mupangwa, W., Dimes, J., Hove, L. and Twomlow, S. 2014. Effect of conservation agriculture on maize yield in the semi-arid areas of Zimbabwe. *Experimental Agriculture*, 50 (2), 159-177 (DOI: 10.1017/S0014479713000562), (IF 2014: 1.079).
27. **Nyamangara, J.**, Mashingaidze, N., Nyengerai, K., Kunzekweguta, M., Masvaya, E., Tirivavi, R. and Mazvimavi, K. 2014. Weed growth and labour demand under hand-hoe based reduced tillage in smallholder farmers’ fields in Zimbabwe. *Agriculture, Ecosystems & Environment*, 187, 146-154. *(*DOI: 10.1016/j.agee.2013.10.005*)*, (IF 2014: 3.402).
28. Masaka, J., **Nyamangara, J.**, Mugabe, F.T. and Wuta, M. 2013. Effect of manure quality on nitrate leaching and groundwater pollution in wetland soil under field tomato (*Lycopersicon esculentum*, Mill var. Heinz) and rape (*Brassica napus, L var. Giant*). *Nutrient Cycling in Agroecosystems*, 96(2-3), 149-170*.* (DOI: 10.1007/s10705-013-9583-8), (IF 2013: 1.733).
29. **Nyamangara, J.**, Jeke, N. and Rurinda, J. 2013. Long-term nitrogen and phosphorus loading in river water in the Upper Manyame Catchment Area, Zimbabwe. *Water SA*, 39 (5), 637-642. (DOI: 10.4314/was.v39i5.7), (IF 2013: 0.809).
30. Rusinamhodzi, L., Corbeels, M., Zingore S., **Nyamangara, J.**, Giller, K.E. 2013 Pushing the envelope? Ecological intensification and the role of cattle manure in the recovery of degraded soils in smallholder farming areas of Zimbabwe. *Field Crops Research*, 147, 40-53. (DOI: [10.1016/j.fcr.2013.03.014](http://dx.doi.org/10.1016/j.fcr.2013.03.014)), (IF 2013: 2.608).
31. Rees, R.M., Augustin, J., Alberti, G., Ball, B.C., Boeckx, P., Cantarel, A., Castaldi, S., Chirinda, N., Chojnicki, B., Giebels, M., Gordon, H., Grosz, B., Horvath, L., Juszczak, R., Kasimir Klemedtsson, Å., Klemedtsson, L., Medinets, S., Machon, A., Mapanda, F., **Nyamangara, J.**, Olesen, J.E., Reay, D.S., Sanchez, L., Sanz Cobena, A., Smith, K.A., Sowerby, A., Sommer, M., Soussana, J.F., Stenberg, M., Topp, C.F.E., van Cleemput, O., Vallejo, A., Watson, C.A. and Wuta, M. 2013. Nitrous oxide emissions from European agriculture - an analysis of variability and drivers of emissions from field experiments. *Biogeosciences*, 10, 2671-2682. (DOI: 10.5194/bg-10-2671-2013), ), (IF 2013: 3.753)
32. Mapanda, F., Munotengwa, S., Wuta, M., Nyamugafata, P. and **Nyamangara, J.** 2013. Short term responses of selected soil properties to clearing and cropping of miombo woodlands in central Zimbabwe. *Soil and Tillage Research,* 129, 75-82. (DOI: [10.1016/j.still.2013.01.008](http://dx.doi.org/10.1016/j.still.2013.01.008)), (IF 2013: 2.575).
33. **Nyamangara, J.**, Masvaya, E.N., Tirivavi, R., Nyengerai, K. 2013. Effects of hand-hoe conservation agriculture on soil fertility and maize yield in selected smallholder farming areas in Zimbabwe. *Soil and Tillage Research,* 126, 19-25. ([DOI: 10.1016/j.still.2012.07.018](http://dx.doi.org/10.1016/j.still.2012.07.018)), (IF 2013: 2.575).
34. Nyamadzawo, G., Chirinda, N, Mapanda, F., **Nyamangara, J.**, Wuta, M. and Nyamugafata. 2012. Land-use and land-use change effects on nitrous oxide emissions in seasonally dry ecosystems of Zimbabwe: A review. *African Crop Science Journal*, 20 *(supplement S2),* 551-562. (IF 2012: 1.513).
35. Mapanda, F., Wuta, W., **Nyamangara, J.**, Rees, R.M. and Kitzler, B. 2012. Greenhouse gas emissions from savanna (miombo) woodlands: responses to clearing and cropping. *African Crop Science Journal*, 20, (supplement S2), 385-400. (IF 2012: 1.513).
36. Mapanda, F., Wuta, W., **Nyamangara, J.** and Rees, R.M. 2012. Nutrient leaching and indirect nitrous oxide emissions from fertilized croplands in Zimbabwe. *Nutrient Cycling in Agroecosystems*, 94, 85-96. (DOI: 10.1007/s10705-012-9528-7), (IF 2012:1.416)
37. Rusinamhodzi, L., Corbeels, M., **Nyamangara, J.** and Giller, K.E. 2012. Maize-grain legume intercropping is an attractive option for ecological intensification that reduces climatic risk for smallholder farmers in central Mozambique. *Field Crops Research,* 136, 12-22.(DOI: 10.1016/j.fcr.2012.07.014), (IF 2012: 2.474).
38. Nyamadzawo, G., Nyamugafata, P., Wuta, M., **Nyamangara, J.** and Chikowo, R. 2012. Rainfall infiltration and runoff losses under fallowing and conservation agriculture practices in contrasting soils of central Zimbabwe. *WaterSA,* 38(2), 233-240 (DOI:10.4314/wsa.v38i2.18), (IF 2012: 0.876).
39. Mashingaidze, N., Madakadze, C., Twomlow, S., **Nyamangara, J.** and Hove, L. 2012. Crop yield and weed growth under conservation agriculture in semi-arid Zimbabwe. *Soil & Tillage Research*, 124, 102-110 (DOI: 10.1016/j.still.2012.05.008), (IF 2012: 2.367).
40. Dunjana, N., Nyamugafata, P**.,** Shumba, A., **Nyamangara, J.** and Zingore, S. 2012 Effects of soil fertility management practices on soil physical properties of contrasting soils in Murewa, Zimbabwe. *Soil Use and Management,* 28 (2), 221-228. (DOI: 10.1111/j.1475-2743.2012.00394.x.), (IF 2012: 2.367).
41. Nyamadzawo, G., Nyamugafata, P., Wuta, M. and **Nyamangara, J.** 2012. Maize yields under coppicing and non coppicing fallows in a fallow-maize rotation system in central Zimbabwe. *Agroforestry Systems*, 84, 273–286 (DOI: 10.1007/s10457-011-9453-9), (IF 2012: 1.373).
42. Rusinamhodzi, L., Corbeels, M., van Wijk, M.T., Rufino, M.C., **Nyamangara, J.** and Giller, K.E. 2011. A meta-analysis of long-term effects of conservation agriculture practices on maize grain yield under rain-fed conditions: lessons from southern Africa. *Agronomy for Sustainable Development*, 31 (4), 657-673 (DOI: 10.1007/s13593-011-0040-2), (IF 2011: 3.33).
43. Giller, K.E., Corbeels, M., **Nyamangara, J.**, Triomphe, B., Affholder, F., Scopel, E. and Tittonell, P. 2011. A research agenda to explore the role of conservation agriculture in African smallholder farming systems. *Field Crops Research, 124, 468-472*. (DOI: 10.1016/j.fcr.2011.04.010), (IF 2011: 2.474).
44. Mapanda, F., Wuta, M., **Nyamangara, J.** And Rees, R.M. 2011. Effects of organic and mineral fertilizer nitrogen on greenhouse gas emissions and plant-captured carbon under maize cropping in Zimbabwe. *Plant and Soil,* 343 (1), 67-81 (DOI: 10.1007/s11104-011-0753-7), (IF 2011: 2.773).
45. Mapanda, F., Mupini, J., Wuta, W., **Nyamangara, J.** and Rees, R.M. 2010. A cross-ecosystem assessment of the effects of land cover and land use on soil emission of selected greenhouse gases and related soil properties in Zimbabwe. *European Journal of Soil Science*, 61, 721-733 (DOI: 10.1111/j.1365-2389.2010.01266.x), (IF 2010: 1.932).
46. **Nyamangara, J.** and Nyagumbo, I. 2010. Interactive effects of selected nutrient resources and tied-ridging on plant performance in a semi-arid smallholder farming environment in central Zimbabwe. *Nutrient Cycling in Agroecosystems* [88 (1](http://www.springerlink.com/content/1385-1314/88/1/)), 103-109 (DOI: 10.1007/s10705-009-9282-7), (IF 2010: 1.957), (Springer).
47. Masvaya, E.N., Nyawasha, R.W., Zingore, S., **Nyamangara, J**., Delve, R.J. and Giller, K.E. 2010. Spatial soil fertility variability and plant nutrient uptake: A case of two smallholder farming areas in contrasting agro-ecological zones in Zimbabwe. *Nutrient Cycling in Agroecosystems,* 88(1), 111-120 (DOI: 10.1007/s10705-009-9262-y), (IF 2010: 1.957), (Springer).
48. **Nyamangara, J.**, Mtambanengwe, F. and Musvoto, C. 2009. Carbon and nitrogen mineralization from selected organic resources available to smallholder farmers for soil fertility improvement in Zimbabwe. *African Journal of Agricultural Research,* 4(9), 870-877. (IF 2009: 0.08).
49. Cobo, J.G., Dercon, G., Monje, C., Mahembe, P., Gotosa, T., **Nyamangara, J.**, Delve, D. and Cadisch, G. 2009. Cropping strategies, soil fertility investments and land management practices by smallholder farmers in communal and resettlement areas in Zimbabwe. *Land Degradation and Development*, 20, 492-508 (DOI: 10.1002/1dr.927), (IF 2009: 1.326).
50. Rusinamhodzi, L., Murwira, H.K. and **Nyamangara, J.** 2009. Effect of cotton-cowpea intercropping on carbon and nitrogen mineralization patterns of residue mixtures and soil. *Australian Journal of Soil Research*, 47 (2), 190-197. (IF 2009: 1.007).
51. Nyamadzawo, G., **Nyamangara, J.,** Nyamugafata, P and Muzulu, A. 2008. Soil microbial biomass and mineralization of aggregate protected carbon in fallow-maize systems under conventional and no-tillage in Central Zimbabwe. *Soil and Tillage Research,* 102, 151-157. (DOI: 10.1016/j.still.2008.08.007), (IF 2008: 1.695) (Elsevier Science Ltd).
52. **Nyamangara, J.**, Bangira, C., Taruvinga, T., Masona, C., Nyemba, A. and Ndlovu, D. 2008. Effects of sewage and industrial effluent on the concentration of Zn, Cu, Pb and Cd in water and sediments along Waterfalls stream and Lower Mukuvisi River in Harare, Zimbabwe. *Physics and Chemistry of the Earth,* 33, 708-713. (IF 2008: 1.138) (Elsevier Science Ltd.).
53. Nyamadzawo, G., Chikowo, R., Nyamugafata, P., **Nyamangara, J.** and Giller. K.E. 2008. Soil organic carbon dynamics of improved fallow-maize rotations systems under conventional and no-tillage from central Zimbabwe. Nutrient *Cycling in Agroecosystems,* 81, 85-93. (IF 2008: 1.282) (Springer).
54. Zingore, S., Delve, R.J., **Nyamangara, J.** and Giller, K.E. 2008. Multiple effects of manure: The key to maintenance of soil fertility and restoration of depleted sandy soils on African smallholder farms. *Nutrient Cycling in Agroecosystems,* 80, 267-282. (Springer). (IF 2008: 2.884).
55. Nyamadzawo, G., Mapanda, F., Nyamugafata, P., Wuta, M and **Nyamangara, J**., Wuta, M. 2007. Short-term impacts of sulphate mine dump rehabilitation on below ground water and surface waters of Yellow Jacket River, Mazowe, Zimbabwe. *Physics and Chemistry of the Earth,* 32, 1376-1383. (Elsevier Science Ltd.). (IF 2007: 0.653)
56. Katanda, Y., Mushonga, C., Banganayi, F. and **Nyamangara, J**. 2007. Effects of heavy metals contained in soil irrigated with a mixture of sewage sludge and effluent for thirty years on soil microbial biomass and plant growth. *Physics and Chemistry of the Earth,* 32, 1185-1194. (IF 2007: 0.653) (Elsevier Science Ltd.).
57. Mapanda, F., Nyamadzawo, G., **Nyamangara, J**. and Wuta 2007. Effects of discharging acid-mine drainage into evaporation ponds lined with clay on chemical quality of surrounding soil and water. *Physics and Chemistry of the Earth,* vol. 32, 1366-1375. (Elsevier Science Ltd.) (IF 2007: 0.653).
58. Mapanda, F., Mangwayana, E.N. **Nyamangara, J**. and Giller, K.E. 2007. Uptake of heavy metals by vegetables irrigated using wastewater and the subsequent risks in Harare, Zimbabwe. *Physics and Chemistry of the Earth,* vol. 32, 1399-1405. (Elsevier Science Ltd.) (IF 2007: 0.653).
59. Rusinamhodzi, L., Murwira, H.K. and **Nyamangara, J.** 2006. Effects of cotton-cowpea intercropping on N2-fixation capacity, N balance and yield of subsequent maize under Zimbabwean rainfed conditions. *Plant and Soil,* 287, 327-336. (Springer). (IF2006: 1.495)
60. Madakadze, R., **Nyamangara, J**. and Mahenga, G. 2006. Protea nutritional problems and soil nutrient status in Darwendale, Norton and Juliasdale farming areas, Zimbabwe. *Journal of Plant Nutrition,* 29, 1557-1571. (Taylor & Francis Group, USA). (IF 2006: 0.441)
61. Kirchmann, H., **Nyamangara, J**. and Cohen, Y. 2005. Recycling municipal wastes in the future- from organic to inorganic forms? *Soil Use and Management,* 21, 152-159. (CABI Publishing). (IF 2005: 1.342)
62. Mapanda, F., Mangwayana, E.N., **Nyamangara, J**. and Giller, K.E. 2005. The effects of long-term irrigation using wastewater on Zn, Cu, Ni, Cr and Pb accumulation in soils under vegetables in Harare, Zimbabwe. *Agriculture, Ecosystems and Environment*, 107 (2-3), 151-165. (Elsevier Science Ltd.). (IF 2005: 1.495).
63. Tandi, N.K., **Nyamangara, J**. and Bangira, C. 2004. Environmental and potential health effects of growing leafy vegetables on soil irrigated using sewage sludge and effluent: A case of Zn and Cu. *Journal of Environmental Science and Health, Part B–Pesticides, Food Contaminants, and Agricultural Wastes.*, vol. 39 (3), 461-471. (Marcel Dekker, Inc.). (IF 2004: 0.569).
64. Madyiwa, S., Chimbari, M.J., Schutte, C.F., **Nyamangara, J**. 2003. Greenhouse studies on the phyto-extraction capacity of *Cynodon nlemfuensis* for lead and cadmium under irrigation with treated waste water. *Physics and Chemistry of the Earth*, vol. 28, (20-27), 859-867. (Elsevier Science Ltd.). (IF 2003: 0.574).
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